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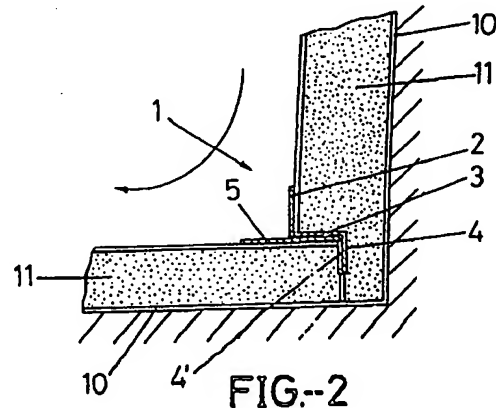
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(54) **END SECTIONS OF CONNECTIONS FOR MINERAL WOOL CONDUITS OF THE "CLIMAVER PLUS" TYPE**

(57) End sections of connections for mineral wool conduits of the "Climaver Plus" type, particularly intended to be used as nexus for flanging the terminal edges of the mineral wool sections.



## Description

### PURPOSE OF THE INVENTION

These Specifications refer to an application for a model of utility concerning the shaping of junction finishes for "Climaver Plus" type glass wool piping, clearly designed for use as finishing units for the ends of the glass wool shapes.

### FIELD OF THE INVENTION

This invention applies in the metal shape manufacturing industry.

### BACKGROUND TO THE INVENTION

Self-supporting glass or mineral wool pipes commonly used to make air conditioning piping are cut and joined together to follow the outlines of building walls and ceilings.

At such junctions between the pipes, the air flow raises the inside edge of the pipe and eventually lifts and removes the mineral wool, to the serious detriment of the air flow, which is thus reduced and so impairs the cooling or heating of the premises.

The obvious solution to this problem at present would be to provide a component specifically preventing those anomalies.

The applicant is at present unaware of the existence of any device, element or shape which avoids this problem.

### DESCRIPTION OF THE INVENTION

The shaping of junction finishes for "Climaver Plus" type glass wool piping proposed in the invention is of itself a clear novelty within its field of action since, once incorporated into glass or mineral wool air piping or self-carried type piping, the anomalies referred to above are avoided.

More specifically, the shaping for the finish to junctions for "Climaver plus" type glass wool piping which is the subject of the invention is manufactured from a shape which can vary but which will, in general, be fundamentally long, where there are two similar areas made by folding an aluminium or other metal strip into a 90° angle at the top and extending horizontally where, immediately at the end of said horizontal area, it is shaped in the opposite direction, and adapting to the lower part of said horizontal area, to emerge from the upper vertical section from the other side, thereby forming an area of junction between the two different mineral or glass wool elements, added at the point where they are joined, and avoiding the anomalies created by the air flow with the lifting of the wool linings which spoil the flow in the interior of the piping.

In summary, the shape obtained by folding an aluminium or similar metal plate takes the form of a double

right angle in opposite positions, with a protruding skirt at right angles to the two vertical extensions, precisely acting as the point of junction of panels made of glass or mineral wool to form tubular piping for air conditioning applications, specifically as pipes through which the air delivered to the various areas flows.

Clearly, the shape can be adapted to any form which may be deemed appropriate, with small modifications in order to connect the panels used to make the piping.

### DESCRIPTION OF THE DRAWINGS

To complement the description being given and in order to assist in a better understanding of the features of the invention, these Specifications are accompanied by a sheet of drawings, forming an integral part hereof and which, by way of illustration and without limitation, show the following:

Figure no. 1 is a perspective view of the subject of the invention concerning junction finish shaping for "Climaver Plus" glass wool piping.

Figure no. 2 shows the way in which the component illustrated in figure 1 is coupled on glass or mineral wool panels.

### A PREFERENTIAL EMBODIMENT OF THE INVENTION

These illustrations show how the shaping for finishing "Climaver Plus" type glass wool piping junctions put forward comprises a body (1) of undefined length, preferably made of aluminium or some other metal, on a suitably folded plate, with a vertical upper area (2) of rectangular ground plan form, and with a lateral prolongation (3) which is also rectangular, with which element (2) forms a 90° angle: a vertical extension (4) emerges from the finishing line of zone (3) which, at its own finishing line, is deformed and then folded into a vertical upward direction to create an area (4) which is further shaped into a 90° angle to partially back on to the lower surface of the area (3), and with a similar area emerging from the opposite part, to form a wing extension.

Figure 2 shows clearly how that configuration, illustrated in figure 1, fits perfectly between two elements (10) made as components for forming pipes, made of mineral wool (11) and located between the bodies (10) holding it up. This illustration shows how the areas (2) and (3) fit to one of the areas of said body (10) while the sides (4) and (4)' are secured between two elements (10), with the emergence of the wing extension (5), and fitting on to the inside surface of the pipe, together with the element (2).

No further description is considered necessary to enable any expert in the field to grasp the scope of the invention and the advantages arising from it.

The materials, shape, size and layout of the ele-

ments may vary, provided that this does not alter the essential nature of the invention.

The terms of these specifications must be understood in all cases broadly, without limitation.

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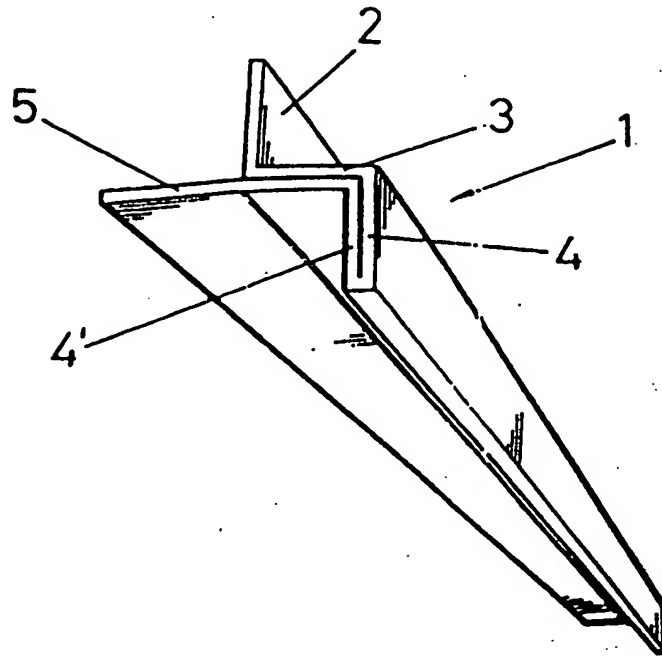


FIG.--1

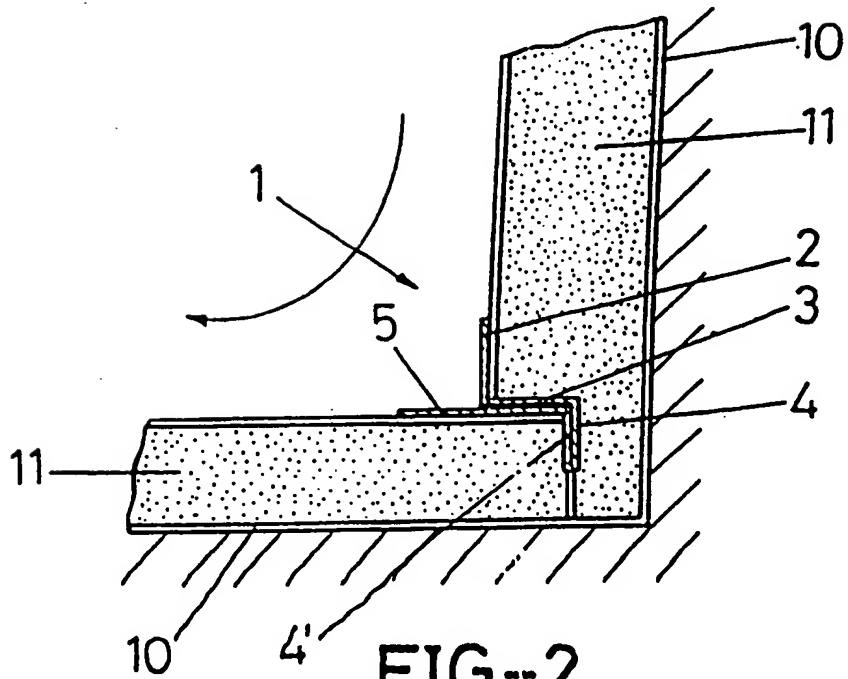


FIG.--2

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00183

## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>6</sup>: F24F 13/02; E04F 17/04; F16S 1/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>6</sup>: F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PROPILE, PANEL, PIBERGLASS, CONNECT, COUPL+, EPODOC, CIBEPAT, ISOLOT, AIR, CORNER, ....

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 1679519 A (GRUEZWEIG & HARTMANN) 08 April 1971 (08.04.71); see the whole document	1
A	US 4280536 A (GNANT ERICH) 28 July 1981 (28.07.81) column 3; lines 39-42; fig. 5	1
A	DE 2221140 A (BERNHARD RELAND) 08 November 1973 (08.11.73); claim 1; figs.	1
A	WO 9311327 A (FLOEKT, Ab) 10 June 1993 (10.06.93), abstract; figs.	1

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

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"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z" document member of the same patent family

Date of the actual completion of the international search

5 February 1997 (05.02.97)

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